March Spectrum Auctions: A Looming Disappointment?
-High Reserve Prices -A Chokehold on India's Digital Future

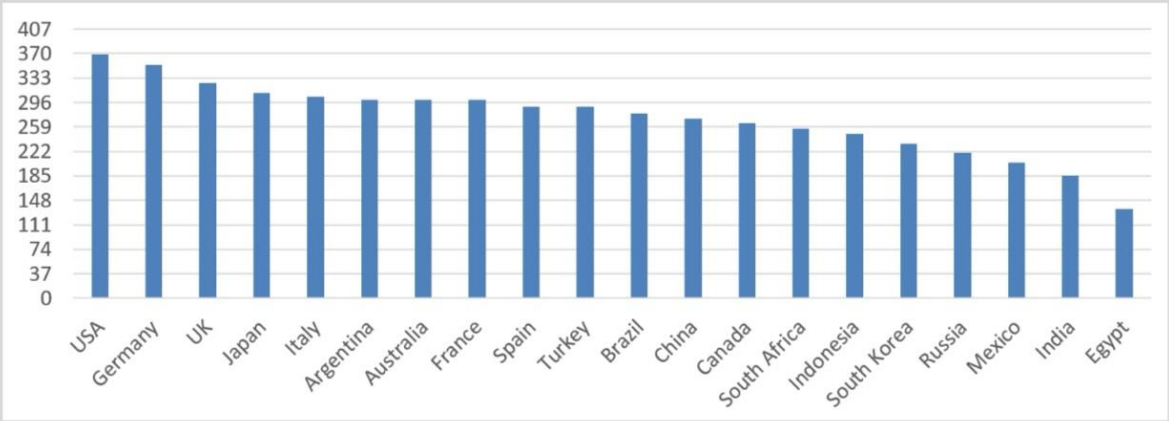
By TV Ramachandran

We seem to be destined to repeat history since we do not appear to have learnt from it. Telecom experts believe that the upcoming March spectrum auctions will yield sub-optimal results like its predecessors. Previously, previous auctions since 2010 could sell, on an average, only 60% of the spectrum put up; the last auction sold only 40%! If an auctioned good is a luxury item - like a rare painting – one needn't worry. But, in this digital era, spectrum is an essential and a "key natural resource" (DoT), so urgent reform is needed. Experts predict highly muted participation yet again due to unrealistic reserve prices (RP). *While losses to the government and Telcos are more apparent, they actually pale in comparison to the body blow to India's economic growth, to end users, and to unserved & underserved communities*. It is futile to do the same thing, time after time, and expect different results. It's time to cut and reset.

Starting March 1st, the DoT plans to auction spectrum in the following bands: 700, 800, 900, 1800, 2100, 2300, and 2500 MHz. RP is fixed at Rs 3.92 lakh crore. Top players have already declared that the RP is too high. Indian Telecom is a mature market with a high level of consolidation. There are very few players – most of whom are buckling under heavy debt. To manage cash flow, top players are expected to bid very little, or not at all. ***Once again, the country could face the repercussions of repeated auction failure with large amounts of idle spectrum, the biggest losers being the unconnected and underserved.***

It is not that the industry does not want additional spectrum. We are at sub-optimal level and quite ill-equipped for the broadband/digital era as shown in Fig.1.

FIGURE I - COUNTRY WISE PRESENT SPECTRUM ALLOCATION STATUS FOR MOBILE WIRELESS SERVICES (IN MHZ)



Source: BIF analysis, September 2018

India's spectrum prices are one of the highest globally, and tariffs are one of the lowest. Telecom players are powerless to invest in direly-needed infrastructure. An alternative is to buy very high-priced spectrum and recuperate this amount by raising tariffs. But this is not viable for the cost-conscious Indian market. Obviously, both general quality of service and connectivity to unserved and underserved areas are badly hit. Especially unacceptable in today's Covid-impacted environment.

The pandemic has significantly widened the gap between the haves and the have-nots. Demand for wired and wireless broadband hit an all-time high. Those who could afford smartphones, multiple broadband and Wi-Fi services are weathering the disruptions to work, school, and the procurement of essential goods. In 2020, rural broadband consumption increased to 45% of overall mobile data used. Overall, data usage is expected to grow 30-40% through FY 2021 (Crisil). However, those who didn't have access to quality broadband services, particularly in light of lockdowns and social distancing restrictions, were severely hit. Everyone benefits only when Telcos can invest in vital infrastructure and provide coverage everywhere.

Access to requisite amounts of spectrum results in high socio-economic growth as established repeatedly by reputed agencies like the World Bank, London School of Economics, ICRIER, and others. *India-specific studies by ICRIER have shown that a 10% increase in mobile internet traffic results in a 1.3% increase in India's GDP – a tremendous benefit! Illustratively, in2015-2016, a 1117% increase in internet traffic delivered an absolute increase of USD 103.9 billion, i.e. nearly Rs 7 lakh crores!* ***Why are we not leveraging such humungous benefits with the idle spectrum?***

We cannot use clearing prices from previous auctions as a starting point to calculate the next RP. This is particularly true when the final clearing price is close to, or equal to, the RP – like in past Indian spectrum auctions. For Telecom players, this is like barely managing to climb the first stair in a staircase and then discovering the next stair is double or triple the height of the previous one! **In the 2016 auction, 60% of the spectrum auctioned remained unsold and lay idle. Spectrum that could have helped us build India's digital future.** Bidding in other auctions has been similarly subdued. In numerous auctions, the average sales price was hardly 5% above the RP. In the 2010 auction, market forces were very different. Having many licensed players drove up the bidding, so this cannot be a benchmark for future auctions. Overall, this pattern of low spectrum sales is not a sign of a healthy system.

We would hasten to add that there is nothing basically wrong with our auction type viz, SAA – Simultaneous Ascending Auction. However, several Rules governing the auction which are 'legacy developments, are adversely impacting the auction outcome. Of these undesirable features, the most important is the RP and the manner in which it is arrived at. What is the point of a spectrum auction where the high RP prevents discovery of the market price through vibrant bidding above RP?

In contrast, let's look at successful spectrum auctions worldwide. The UK, for example, had 100% of their spectrum sold – a resounding success. The UK government benefitted from reasonable RPs and achieved a high clearing price. Licensed bidders had a level-playing baseline to begin their bidding. In 2013, the 800 MHz and 2600 MHz UK auction concluded with a total of £2.34 billion, a premium of ~80% over RP. In their 5G auction, total spectrum sold was 19 times the RP - to the tune of £70 million! This proves that optimal RP is the best indicator of an auction's success.

Table 1: **Recent Spectrum Auctions Worldwide**

S.No.	Country	Spectrum bands	Auction/ award date	Quantum of spectrum offered	% of spectrum sold
1	Finland	25.1-27.5 GHz	Jun-20	2400 MHz	100%
2	Australia	3575-3700 MHz	Dec-18	125 MHz	100%
3	Austria	3410–3800 MHz	Mar-19	390 MHz	100%
4	Sweden	700 MHz	Dec-18	40 MHz	100%
		3600 MHz	May-20	80 MHz	Local License
5	Spain	3600-3800 MHz	Jul-18	200 MHz	100%
6	UK	2300 MHz	Apr-18	40 MHz	100%
		3400 MHz	Apr-18	150 MHz	100%
7	USA	600 MHz	Apr-17	70 MHz	100%
		28 GHz	Jan-19	1650 MHz	100%
		24 GHz	May-19	700 MHz	100%
		37 GHz, 39 GHz & 47 GHz	Mar-20	3400 MHz	99.9%

Country Regulator and Operator Websites, BIF

The Reserve Price should be a % of the spectrum valuation number. There are several methods of valuation possible, each with its own merits and demerits. TRAI uses 4 different methods and takes the mean of these for final valuation number. This could well be continued except that the weighted mean is more appropriate than the arithmetic mean followed by TRAI. Moreover, the Revenue Surplus method is, as per experts, more suited to Indian conditions.

Importantly, the set RP should be a low enough value to promote vibrant discovery of the market value of spectrum but be high enough to deter frivolous participants. For India, a suitable value could be 50-60% instead of the current high value of 80%.

Our nation's safety and growth lie in high-quality broadband penetration across the country. Spectrum being the lifeblood of digital connectivity, it is vital to immediately release the chokehold on competitive price discovery in our spectrum auctions.

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